

slp wed July 6

# Work Order ID 71396

Thursday, June 30, 2011 3:16:23 PM



~~PRELIMINARY ISSUE~~

Item ID: D4420-041 Accept

Revision ID: PRELIM

Item Name: Top Support Assembly

Start Date: 6/30/2011 Start Qty: 1.00

Required Date: 7/8/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:



Setup Start

Stop

Run Start

Stop

Approvals: Process Plan: [Signature] Date: 7-04-30 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4420	PA1 A

100		0.00							
-----	--	------	--	--	--	--	--	--	--

Waterjet		0.00							
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FLOW CNC Waterjet									
2004.063									
	Memo								
	1- Cut D4420-1 as per dwg								
	prog rev: PA1								
	dwg rev: PM								
	2- Deburr as per dwg								

110		0.00							
-----	--	------	--	--	--	--	--	--	--

QC		0.00							
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Quality Control									
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B11-7-4

(3)

B11-7-4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 71396**

Thursday, June 30, 2011 3:16:23 PM



Page 2

Item ID: D4420-041

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Top Support Assembly

Start Date: 6/30/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00 - inspected to PA1

0.00

Dry only  
8/10/105

(73)

125



Small Fab

Small Fab

Memo

1- Bend as per dwg

0.00

0.00

SB 11/6/105

(3)

127



QC

Quality Control

QC6- Inspect dimensions to drawing

Memo

0.00 - inspected to

0.00

PA Dry only

8/10/105 (73)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 71396**

Thursday, June 30, 2011 3:16:23 PM



Page 3

Item ID: D4420-041

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Top Support Assembly

Start Date: 6/30/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

3  $\phi$  BL 11-7-6

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

3X  $\phi$  m-11/07/06

150

0.00



Small Fab

Memo

0.00

Small Fab

Assemble as per dwg D4420

G Sn/07/06 (3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 71396

Thursday, June 30, 2011 3:16:23 PM



Page 5

Item ID:	D4420-041	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Top Support Assembly					
Start Date:	6/30/2011	Start Qty:	1.00		Cust Item ID:	
Required Date:	7/8/2011	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Identify as per dwg & Stock Location: _____	0.00							
Packaging	Memo	0.00							
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

POSITIVE RECALL  
EFFECTIVE 11/7/12 AUTH MF  
RELEASED 11-07-07 DATE 11-07-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, July 04, 2011 7:50:25 AM

Page 1

Work Order ID: 71396

Parent Item: D4420-041

Parent Item Name: Top Support Assembly



Start Date: 6/30/2011

Required Date: 7/8/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP revA 11.06.30 new issue EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4006-3 		Manufactured	No	N/A			Each	0.0000	1				
Channel D4006-5 		Manufactured	No				Each	13.0000	1				
Foam													

Location	Loc Qty	Loc Code
ST107	13	
63940	13	
M2024T3S.063	sf	252.3800
		0.3



2024-T3 .063 sheet

Location	Loc Qty	Loc Code
MAT022	252.38	
117018	26.88	
117392	225.5	
MS20426AD3-4	Each	5,142.000

MS20426AD3-4 Purchased No



RIVET

OK AS IS  
N/A  
11.06.30

Location	Loc Qty	Loc Code
ST316	5142	
104374	1142	
110398	4000	

B 11-7-5

(3)

117018  
11/7/08

(3)

# Picklist Print

Monday, July 04, 2011 7:50:25 AM

Page 2

Work Order ID: 71396



Parent Item: D4420-041



Parent Item Name: Top Support Assembly

Start Date: 6/30/2011

Required Date: 7/8/2011

Start Qty: 1.00

Required Qty: 1.00

MS20470AD4-5

Purchased

No

Each

634.0000



Rivet, Universal Head

1  
sl

Location

Loc Qty

Loc Code

ST319

634

116893

634

Each

38.0000

MS21059L4

Purchased

No



Nutplate

OK AS IS 11.07.06

11.07.06

Location

Loc Qty

Loc Code

ST301

38

117887

38

3  
1  
11/7/16sf 30

B

4420-043 x1

371398

Monday, July 04, 2011 7:50:25 AM

Shop Packet Print

Page 2



<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 71386
<b>Description:</b> Top Support Assy	<b>Part Number:</b> D4420-1 (Bent)
<b>Inspection Dwg:</b> D4420 <b>Rev:</b> PA1	<b>Page 1 of 1</b>

☒ First Article      ☐ Prototype

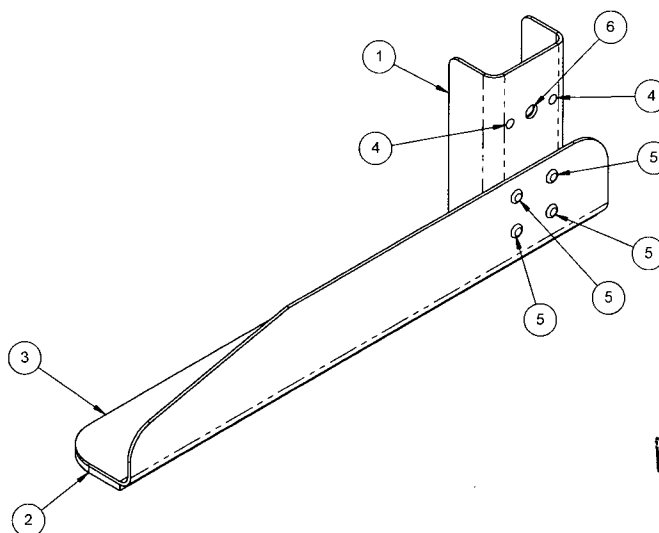
[illegible]

Measured by: SB 11/07/05	Audited by: S	Prototype Approval: N/A
Date:	Date: 11/01/05	Date: N/A

to PAI Day only

Rev	Date	Change	Revised by	Approved
A	-	New Issue	KJ/JLM	

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4420-041	TOP SUPPORT ASSY
1	1	D4006-3	CHANNEL
2	1	D4006-5	FOAM
3	1	D4420-1	ANGLE
4	2	MS20426AD3-4	RIVET
5	4	MS20470AD4-5	RIVET
6	1	MS21059-4	ANCHOR NUT



**D4420-041 TOP SUPPORT ASSY**

WD 71396

**PRELIMINARY ISSUE**

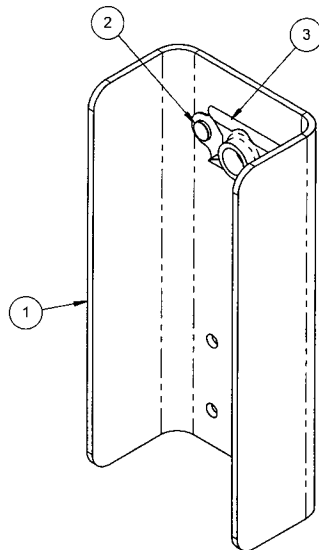
11.06.22

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3  
BEFORE INSTALLATION OF D4006-5 FOAM AND MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-041" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.38 lbs

PA1	NEW ISSUE	MB	11.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4420	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		TOP SUPPORT ASSY	NTS
DATE	11.06.22	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

ITEM	QTY -043	P/N	DESCRIPTION
	X	D4420-043	TOP LEG SUPPORT ASSY
1	1	D4006-3	CHANNEL
2	2	MS20426AD3-4	RIVET
3	1	MS21059-4	ANCHOR NUT



**D4420-043 TOP LEG SUPPORT ASSY**

**PRELIMINARY ISSUE**

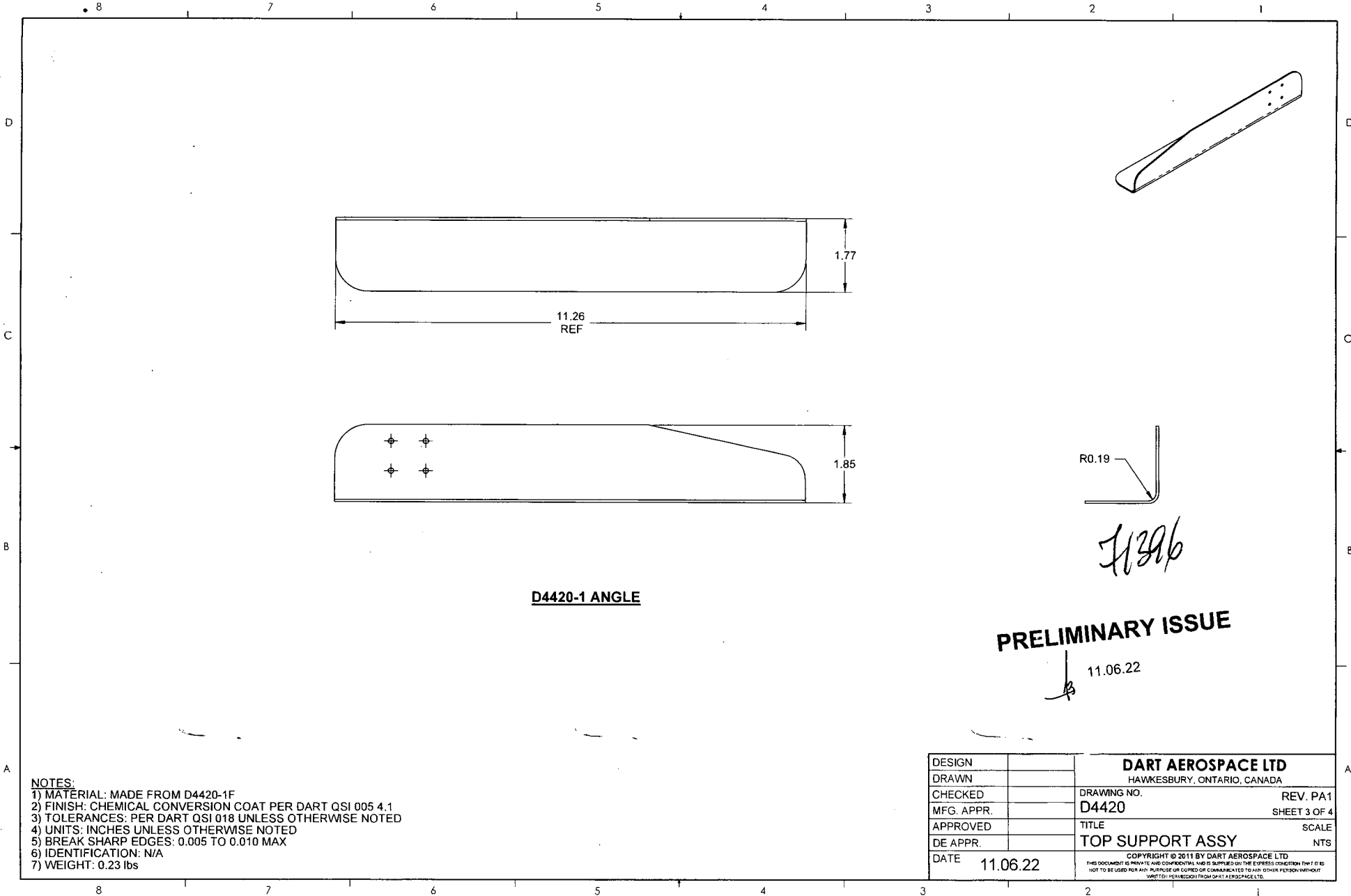
11.06.22

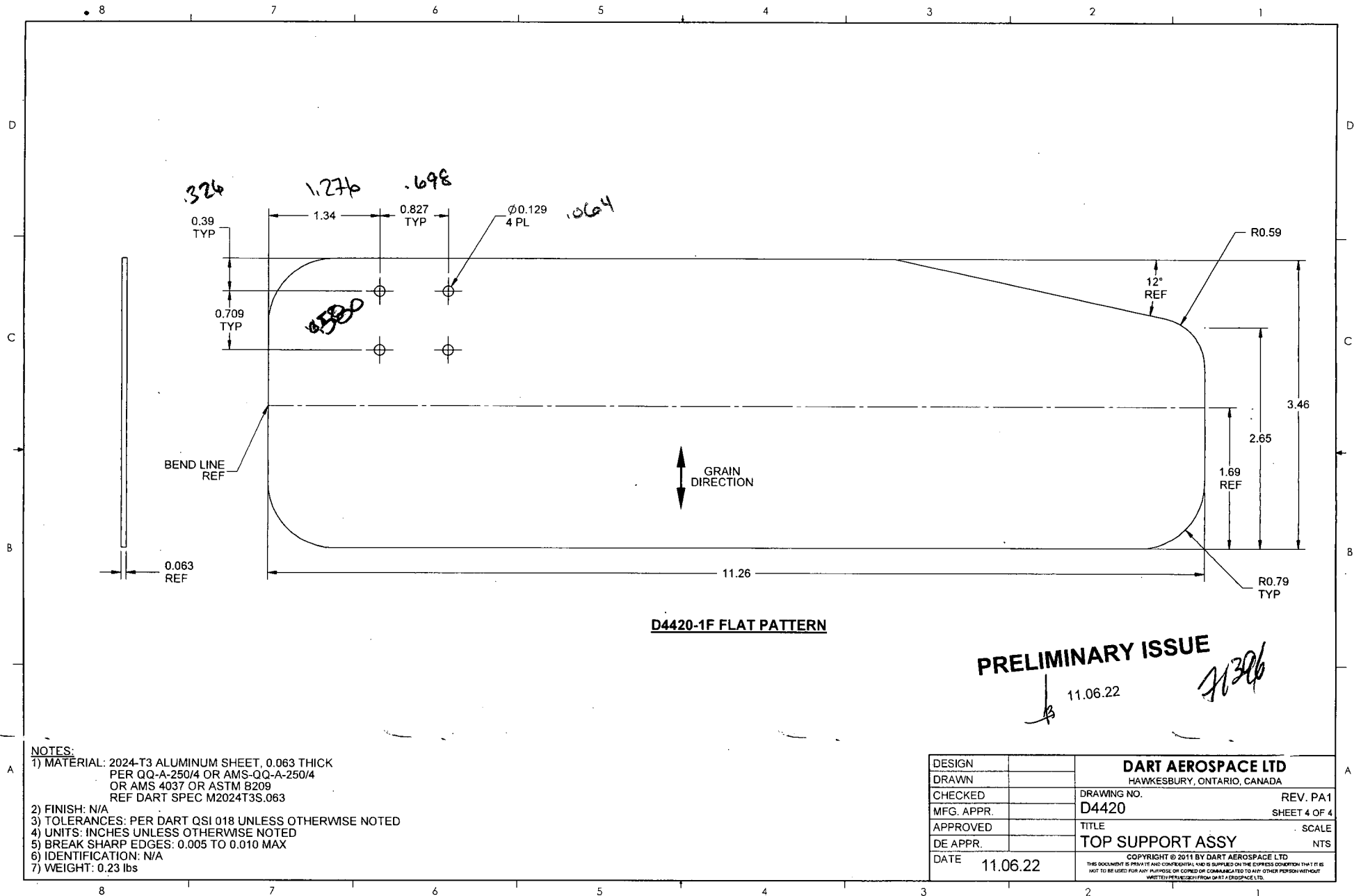
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3 BEFORE INSTALLATION OF MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-043" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.09 lbs

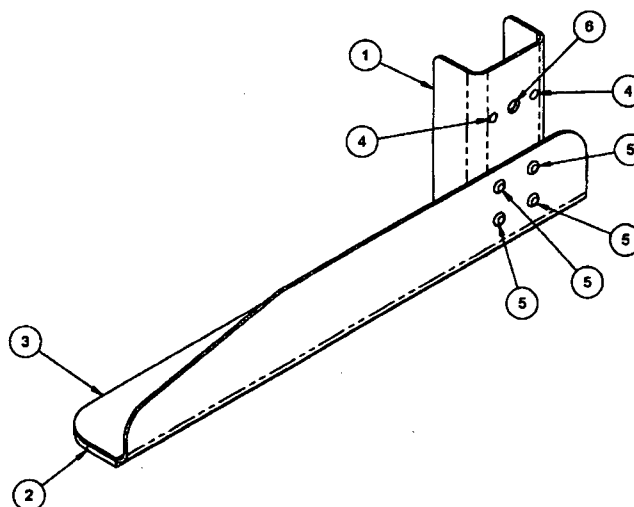
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		<b>D4420</b>	SHEET 2 OF 4
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DE APPR.		<b>TOP SUPPORT ASSY</b>	NTS
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ITEM	QTY	P/N	DESCRIPTION
	X	D4420-041	TOP SUPPORT ASSY
1	1	D4008-3	CHANNEL
2	1	D4006-5	FOAM
3	1	D4420-1	ANGLE
4	2	MS20426AD3-4	RIVET
5	4	MS20470AD4-5	RIVET
6	1	MS21059L4	ANCHOR NUT



**D4420-041 TOP SUPPORT ASSY**

**RELEASED**  
2011-07-06

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEK" (4.3.5.6) PER DART QSI 005 4.3  
BEFORE INSTALLATION OF D4008-5 FOAM AND MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-041" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.38 lbs

A		NEW ISSUE		MB	11.06.22
REV.		DESCRIPTION		BY	DATE
DESIGN		DART AEROSPACE LTD			
DRAWN		HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.	D4420	REV. A	
MFG. APPR.				SHEET 1 OF 4	
APPROVED		TITLE		SCALE	
DE APPR.		TOP SUPPORT ASSY		NTS	
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